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## ABSTRACT

An encoding system for determining position and position changes of a moving member has a sequence of encoder marks forming incremental patterns and at least one index pattern. Two subsequent incremental patterns are indicative of an incremental position-change of the moving member and the index pattern is indicative of a reference position of the moving member. A sensor arrangement views a section of the encoder-mark sequence, the length of which is greater than one position-change increment. An analyzer is arranged to analyze an encoder-mark pattern in the viewed section with regard to the incremental patterns and the index pattern and to generate, in response to a pattern match found, at least one of an incremental-position-change signal and an index signal.